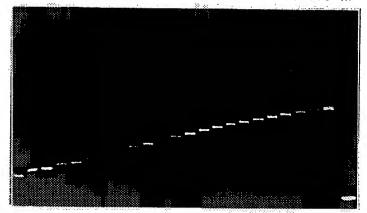
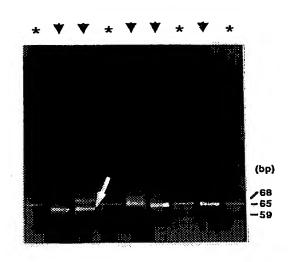
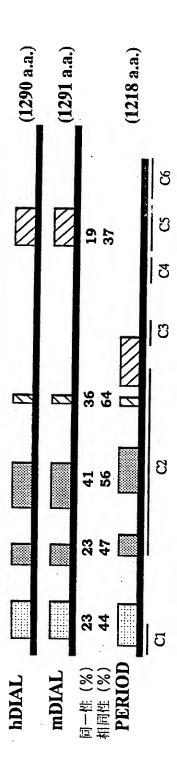


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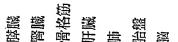




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hdial SASSEQDNPSTSGCSSEQSARARTOKELMTALRELKLRLPPERRGKG-RSGTLATLQYALACVKQVQANQEYYQQWS-LEEGE-PCSMDMSTYTLEELEHITS SASSEQDNPSTSGCSSEQSARARTOKELMTALRELKLRLPPERRGKG-RSGTLATLQYALACVKQVQANQEYYQQWS-LEEGE-PCSMDMSTYTLEELEHITS SASTSLEGRDEEKPRPSGTGCVEQQICRELQDQQHGEDHSEPQAIEQLQQEEEDDGSGSESEADRVEGVAKS-EAAQSFPIP-SPLSVTIVPPSMGGCGGVGHAAGLDSG	210 210 200
hdial ey	289 289 309
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PRIOD PARTOLOGICA STATES CONTRACTOR OF CALLES AND CALLES AND CALLES OF THE STATES OF T	1119 1118 798
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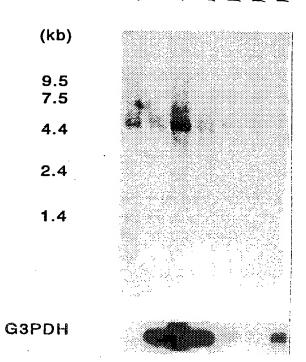
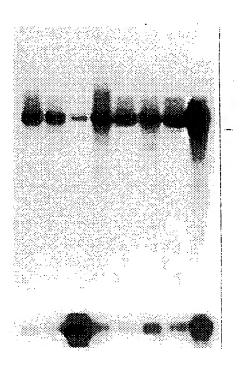


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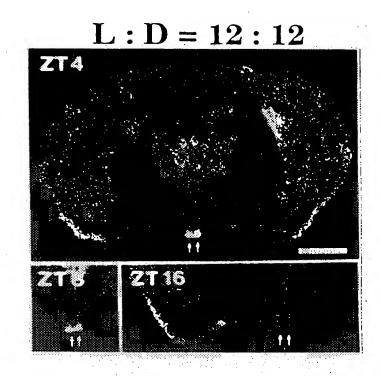
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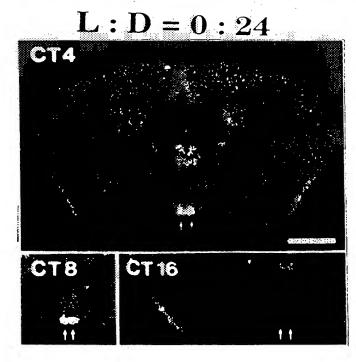
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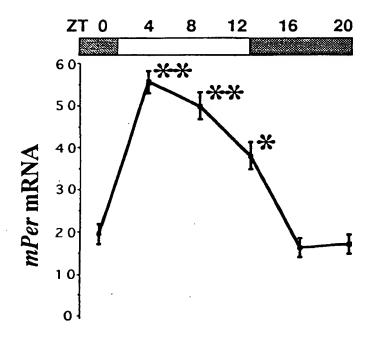
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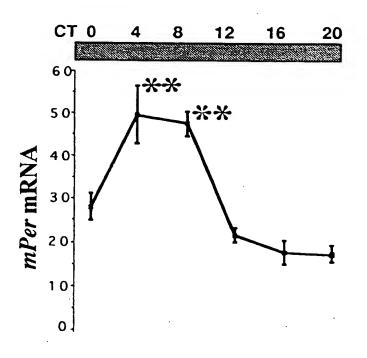
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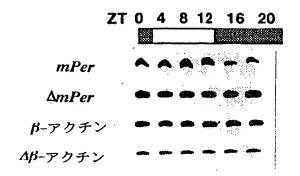
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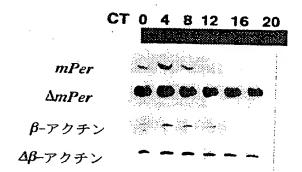












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Leu Lys Leu Arg Leu Pro Pro Glu Arg Arg Gly Lys Gly Arg Ser Gly

Thr Leu Ala Thr Leu Gln Tyr Ala Leu Ala Cys Val Lys Gln Val Gln
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Tyr Val Thr Lys Ile Arg Val Ser Asp Gly Ala Pro Ala Gln Pro Cys
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360
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Leu Phe Gln Asp Val Asp Glu Arg Ala Ala Pro Leu Leu Gly Tyr Leu 370 380

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Pro 465	Leu	Asn	Glu	Asp	Val 470	Phe	Thr	Pro	Pro	Ala 4 7 5	Pro	Ser	Pro	Ala	Pro 480
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575

565

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Cys Asn Leu Pro Ser Thr Thr Lys Arg Lys Cys Ala Ser Ser Ser Ser 645 650 655

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785 790 795 800

Leu Gly Arg Leu Arg Gly Leu Asp Ser Ser Ser Thr Ala Pro Ser Ala 805 810 815

Leu Gly Glu Arg Gly Cys His His Gly Pro Ala Pro Pro Ser Arg Arg
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His His Cys Arg Ser Lys Ala Lys Arg Ser Arg His His Gln Asn Pro 835 840 845

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Ser Thr Pro Trp Pro Thr Pro Pro Ala Thr Thr Pro Phe Pro Ala Val 865 870 875 880

Val Gln Pro Tyr Pro Leu Pro Val Phe Ser Pro Arg Gly Gly Pro Gln 885 890 895

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Gly Pro Pro Thr Pro Ala Ser His Ser Pro Ser Pro Ser Leu Pro Ala 945 950 955 960

Leu Pro Pro Ser Pro Pro His Arg Pro Asp Ser Pro Leu Phe Asn Ser
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Gly Pro Pro Pro Pro Ser Ala Glu Ala Ala Glu Pro Glu Ala Arg Leu 1010 1015 1020

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Asp Leu Leu Glu Leu Leu Gln Glu Asp Ser Arg Ser Gly Thr Gly
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Ser Ala Ala Ser Gly Ser Leu Gly Ser Gly Leu Gly Ser Gly Ser Gly 1060 1065 1070

Ser Gly Ser His Glu Gly Gly Ser Thr Ser Ala Ser Ile Thr Arg Ser 1075 1080 1085

Ser Gln Ser Ser His Thr Ser Lys Tyr Phe Gly Ser Ile Asp Ser Ser 1090 1095 1100

Glu Ala Glu Ala Gly Ala Ala Arg Gly Gly Ala Glu Pro Gly Asp Gln

1105 1110 1115 1120

Val Ile Lys Tyr Val Leu Gln Asp Pro Ile Trp Leu Leu Met Ala Asn

1125 1130 1135

Ala Asp Gln Arg Val Met Met Thr Tyr Gln Val Pro Ser Arg Asp Met

1140 1145 1150

Thr Ser Val Leu Lys Gln Asp Arg Glu Arg Leu Arg Ala Met Gln Lys
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Gln Gln Pro Arg Phe Ser Glu Asp Gln Arg Arg Glu Leu Gly Ala Val 1170 1175 1180

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Ala Cys Val Asp Cys Gly Ser Ser Thr Gln Asp Pro Gly His Pro Asp 1205 1210 1215

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Glu Gly Gly Glu Gln Gly Ser Ser Gly Gly Gly Ser Gly Glu Gly
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Glu Gly Cys Glu Glu Ala Gln Gly Gly Ala Lys Ala Ser Ser Gln 1250 1255 1260

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Ser Asn Gly Ser Ser Gly Asn Glu Ser Asn Gly Pro Glu Ser Arg Gly
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Ala Ser Gln Arg Ser Ser His Ser Ser Ser Ser Gly Asn Gly Lys Asp

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Ser Ala Leu Leu Glu Thr Thr Glu Ser Ser Lys Ser Thr Asn Ser Gln
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Ser Pro Ser Pro Pro Ser Ser Ser Ile Ala Tyr Ser Leu Leu Ser Ala 100 105 110

Ser Ser Glu Gln Asp Asn Pro Ser Thr Ser Gly Cys Ser Ser Glu Gln
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Ser Ala Arg Ala Arg Thr Gln Lys Glu Leu Met Thr Ala Leu Arg Glu
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Leu Lys Leu Arg Leu Pro Pro Glu Arg Arg Gly Lys Gly Arg Ser Gly
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Thr Leu Ala Thr Leu Gln Tyr Ala Leu Ala Cys Val Lys Gln Val Gln
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Ala Asn Gln Glu Tyr Tyr Gln Gln Trp Ser Leu Glu Glu Glu Glu Pro
180 185 190

Cys Ala Met Asp Met Ser Thr Tyr Thr Leu Glu Glu Leu Glu His Ile
195 200 205

Thr Ser Glu Tyr Thr Leu Arg Asn Gln Asp Thr Phe Ser Val Ala Val

210 215 220

Ser Phe Leu Thr Gly Arg Ile Val Tyr Ile Ser Glu Gln Ala Gly Val 225 230 235 240

Leu Leu Arg Cys Lys Arg Asp Val Phe Arg Gly Ala Arg Phe Ser Glu
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Leu Leu Ala Pro Gln Asp Val Gly Val Phe Tyr Gly Ser Thr Thr Pro
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Ser Arg Leu Pro Thr Trp Gly Thr Gly Thr Ser Ala Gly Ser Gly Leu 275 280 285

Lys Asp Phe Thr Gln Glu Lys Ser Val Phe Cys Arg Ile Arg Gly Gly
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Pro Asp Arg Asp Pro Gly Pro Arg Tyr Gln Pro Phe Arg Leu Thr Pro 305 310 315 320

Tyr Val Thr Lys Ile Arg Val Ser Asp Gly Ala Pro Ala Gln Pro Cys
325
330
335

Cys Leu Leu Ile Ala Glu Arg Ile His Ser Gly Tyr Glu Ala Pro Arg
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Ile Pro Pro Asp Lys Arg Ile Phe Thr Thr Arg His Thr Pro Ser Cys
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Leu Phe Gln Asp Val Asp Glu Arg Ala Ala Pro Leu Leu Gly Tyr Leu 370 380

Pro Gln Asp Leu Leu Gly Ala Pro Val Leu Leu Phe Leu His Pro Glu 385 390 395 400

Asp Arg Pro Leu Met Leu Ala Ile His Lys Lys Ile Leu Gln Leu Ala
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410
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Gly Gln Pro Phe Asp His Ser Pro Ile Arg Phe Cys Ala Arg Asn Gly
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Glu Tyr Val Thr Met Asp Thr Ser Trp Ala Gly Phe Val His Pro Trp
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Ser Arg Lys Val Ala Phe Val Leu Gly Arg His Lys Val Arg Thr Ala 450 455 460

Pro Leu Asn Glu Asp Val Phe Thr Pro Pro Ala Pro Ser Pro Ala Pro 465 470 475 480

Ser Leu Asp Ser Asp Ile Gln Glu Leu Ser Glu Gln Ile His Arg Leu
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Leu Leu Gln Pro Val His Ser Ser Ser Pro Thr Gly Leu Cys Gly Val
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Gly Pro Leu Met Ser Pro Gly Pro Leu His Ser Pro Gly Ser Ser Ser 515 520 525

Asp Ser Asn Gly Gly Asp Ala Glu Gly Pro Gly Pro Pro Ala Pro Val
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Thr Phe Gln Gln Ile Cys Lys Asp Val His Leu Val Lys His Gln Gly 545 550 555 560

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Val Pro Val Gly Ala Lys Lys Asp Pro Ser Ser Ala Met Leu Ser Gly
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Pro Glu Ser Asp Ile Ile Met Met Glu Asp Leu Pro Gly Leu Ala Pro
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Gly Pro Ala Pro Ser Pro Ala Pro Ser Pro Thr Val Ala Pro Asp Pro
755 760 765

Thr Pro Asp Ala Tyr Arg Pro Val Gly Leu Thr Lys Ala Val Leu Ser
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WO 99/14324

Leu His Thr Gln Lys Glu Glu Gln Ala Phe Leu Asn Arg Phe Arg Asp
785 790 795 800

Leu Gly Arg Leu Arg Gly Leu Asp Thr Ser Ser Val Ala Pro Ser Ala 805 810 815

Pro Gly Cys His His Gly Pro Ile Pro Pro Gly Arg Arg His His Cys
820 825 830

Arg Ser Lys Ala Lys Arg Ser Arg His His His His Gln Thr Pro Arg 835 840 845

Pro Glu Thr Pro Cys Tyr Val Ser His Pro Ser Pro Val Pro Ser Ser 850 855 860

Gly Pro Trp Pro Pro Pro Pro Ala Thr Thr Pro Phe Pro Ala Met Val 865 870 875 880

Gln Pro Tyr Pro Leu Pro Val Phe Ser Pro Arg Gly Gly Pro Gln Pro 885 890 895

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Thr Pro Pro Ser Tyr Pro Tyr Gly Val Ser Gln Ala Pro Val Glu Gly
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Pro Pro Thr Pro Ala Ser His Ser Pro Ser Pro Ser Leu Pro Pro Pro 945 950 955 960

Pro Leu Ser Pro Pro His Arg Pro Asp Ser Pro Leu Phe Asn Ser Arg 965 970 975

Cys Ser Ser Pro Leu Gln Leu Asn Leu Leu Gln Leu Glu Glu Ser Pro 980 985 990

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Ala Ala Ser Gly Ser Leu Gly Ser Gly Leu Gly Ser Gly Ser 1060 1065 1070

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Gln Ser Ser His Thr Ser Lys Tyr Phe Gly Ser Ile Asp Ser Ser Glu
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Ala Glu Ala Gly Ala Ala Arg Ala Arg Thr Glu Pro Gly Asp Gln Val

1105 1110 1115 1120

Ile Lys Cys Val Leu Gln Asp Pro Ile Trp Leu Leu Met Ala Asn Ala 1125 1130 1135

Asp Gln Arg Val Met Met Thr Tyr Gln Val Pro Ser Arg Asp Ala Ala 1140 1145 1150

Ser Val Leu Lys Gln Asp Arg Glu Arg Leu Arg Ala Met Gln Lys Gln 1155 1160 1165

Gln Pro Arg Phe Ser Glu Asp Gln Arg Glu Leu Gly Ala Val His 1170 1175 1180

Ser Trp Val Arg Lys Gly Gln Leu Pro Arg Ala Leu Asp Val Met Ala 1185 1190 1195 1200

Cys Val Asp Cys Gly Ser Ser Val Gln Asp Pro Gly His Ser Asp Asp 1205 1210 1215

Pro Leu Phe Ser Glu Leu Asp Gly Leu Gly Leu Glu Pro Met Glu Glu
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Gly Gly Glu Gly Gly Gly Cys Gly Val Gly Gly Gly Gly Asp 1235 1240 1245

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21 /46

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Gly	Glu	Ser	Phe	Cys	Pro	Gly	Gly	Val	Pro	Ser	Pro	Gly	Pro	Pro	Gln	
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Ser	Pro	Ser	Pro	Pro	Ser	Ser	Ser	Ile	Ala	Tyr	Ser	Leu	Leu	Ser	Ala	
			100					105					110			
agc	tca	gag	cag	gac	aac	ccg	tcc	acc	agt	ggc	tgc	agc	agt	gaa	cag	384
Ser	Ser	Glu	Gln	Asp	Asn	Pro	Ser	Thr	Ser	Gly	Cys	Ser	Ser	Glu	Gln	
		115					120					125				
tca	gcc	cgg	gca	agg	act	cag	aag	gaa	ctc	atg	aca	gca	ctt	cga	gag	432
Ser	Ala	Arg	Ala	Arg	Thr	Gln	Lys	Glu	Leu	Met	Thr	Ala	Leu	Arg	Glu	
	130					135					140					
ctc	aag	ctt	cga	ctg	ccg	cca	gag	cgc	cgg	ggc	aag	ggc	cgc	tct	ggg	480
Leu	Lys	Leu	Arg	Leu	Pro	Pro	Glu	Arg	Arg	Gly	Lys	Gly	Arg	Ser	Gly	
145					150					155					160	
acc	ctg	gcc	acg	ctg	cag	tac	gca	ctg	gcc	tgt	gtc	aag	cag	gtg	cag	528
Thr	Leu	Ala	Thr	Leu	Gln	Tyr	Ala	Leu	Ala	Cys	Val	Lys	Gln	Val	Gln	
				165					170					175		
						•										
gcc	aac	cag	gaa	tac	tac	cag	cag	tgg	agc	ctg	gag	gag	ggc	gag	cct	576
Ala	Asn	Gln	Glu	Tyr	Tyr	Gln	Gln	Trp	Ser	Leu	Glu	Glu	Gly	Glu	Pro	
			180					185					190			

tgc	tcc	atg	gac	atg	tcc	acc	tat	acc	ctg	gag	gag	ctg	gag	cac	atc	624
Cys	Ser	Met	Asp	Met	Ser	Thr	Tyr	Thr	Leu	Glu	Glu	Leu	Glu	His	Ile	
		195					200					205				
acg	tct	gag	tac	aca	ctt	cag	aac	cag	gat	acc	ttc	tca	gtg	gct	gtc	672
Thr	Ser	Glu	Tyr	Thr	Leu	Gln	Asn	Gln	Asp	Thr	Phe	Ser	Val	Ala	Val	
	210					215					220					
tcc	ttc	ctg	acg	ggc	cga	atc	gtc	tac	att	tcg	gag	cag	gca	gcc	gtc	720
Ser	Phe	Leu	Thr	Gly	Arg	Ile	Val	Tyr	Ile	Ser	Glu	Gln	Ala	Ala	Val	
225					230					235					240	
ctg	ctg	cgt	tgc	aag	cgg	gac	gtg	ttc	cgg	ggt	acc	cgc	ttc	tct	gag	768
Leu	Leu	Arg	Cys	Lys	Arg	Asp	Val	Phe	Arg	Gly	Thr	Arg	Phe	Ser	Glu	
				245					250					25 5		
ctc	ctg	gct	ccc	cag	gat	gtg	gga	gtc	ttc	tat	ggt	tcc	act	gct	cca	816
Leu	Leu	Ala	Pro	Gln	Asp	Val	Gly	Val	Phe	Tyr	Gly	Ser	Thr	Ala	Pro	
			260					265					270			
tct	cgc	ctg	ccc	acc	tgg	ggc	aca	ggg	gcc	tca	gca	ggt	tca	ggc	ctc	864
Ser	Arg	Leu	Pro	Thr	Trp	Gly	Thr	Gly	Ala	Ser	Ala	Gly	Ser	Gly	Leu	
		275					280					285				
адд	gac	+++	acc	cag	gag	aag	tee	ote	ttc	tac	cat	atr	გდგ	σσ2	or or t	912

Arg	Asp	Phe	Thr	Gln	Glu	Lys	Ser	Val	Phe	Cys	Arg	Ile	Arg	Gly	Gly	
	290					295					300					
cct	gac	cgg	gat	cca	ggg	\mathbf{c} ct	cgg	tac	cag	cca	ttc	cgc	cta	acc	ccg	960
Pro	Asp	Arg	Asp	Pro	Gly	Pro	Arg	Tyr	Gln	Pro	Phe	Arg	Leu	Thr	Pro	
305					310					315					320	
tat	gtg	acc	aag	atc	cgg	gtc	tca	gat	ggg	gcc	cct	gca	cag	ccg	tgc	1008
Tyr	Val	Thr	Lys	Ile	Arg	Val	Ser	Asp	Gly	Ala	Pro	Ala	Gln	Pro	Cys	
				325					330					335		
tgc	ctg	ctg	att	gca	gag	cgc	atc	cat	tcg	ggt	tac	gaa	gct	ccc	cgg	1056
Cys	Leu	Leu	Ile	Ala	Glu	Arg	Ile	His	Ser	Gly	Tyr	Glu	Ala	Pro	Arg	
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ata	ccc	cct	gac	aag	agg	att	ttc	act	acg	cgg	cac	aca	ccc	agc	tgc	1104
Ile	Pro	Pro	Asp	Lys	Arg	Ile	Phe	Thr	Thr	Arg	His	Thr	Pro	Ser	Cys	
		355					360					365				
ctc	ttc	cag	gat	gtg	gat	gaa	agg	gct	gcc	ccc	ctg	ctg	ggc	tac	ctg	1152
Leu	Phe	Gln	Asp	Val	Asp	Glu	Arg	Ala	Ala	Pro	Leu	Leu	Gly	Tyr	Leu	
	370					375					380					
ccc	cag	gac	ctc	ctg	ggg	gcc	cca	gtg	ctc	ctg	ttc	ctg	cat	cct	gag	1200
Pro	Gln	Asp	Leu	Leu	Gly	Ala	Pro	Val	Leu	Leu	Phe	Leu	His	Pro	Glu	
385					390					395					400	

gac	cga	ссс	ctc	atg	ctg	gct	atc	cac	aag	aag	att	ctg	cag	ttg	gcg	1248
Asp	Arg	Pro	Leu	Met	Leu	Ala	Ile	His	Lys	Lys	Ile	Leu	Gln	Leu	Ala	
				405					410					415		
ggc	cag	ccc	ttt	gac	cac	tcc	cct	atc	cgc	ttc	tgt	gcc	cgc	aac	ggg	1296
Gly	Gln	Pro	Phe	Asp	His	Ser	Pro	Ile	Arg	Phe	Cys	Ala	Arg	Asn	Gly	
			420					425					430			
gag	tat	gtc	acc	atg	gac	acc	agc	tgg	gct	ggc	ttt	gtg	cac	ccc	tgg	1344
Glu	Tyr	Val	Thr	Met	Asp	Thr	Ser	Trp	Ala	Gly	Phe	Val	His	Pro	Trp	
		435					440					445				
agc	cgc	aag	gta	gcc	ttc	gtg	ttg	ggc	cgc	cac	aaa	gta	cgc	acg	gcc	1392
Ser	Arg	Lys	Val	Ala	Phe	Val	Leu	Gly	Arg	His	Lys	Val	Arg	Thr	Ala	
	450					455					460					
ccc	ctg	aat	gag	gac	gtg	ttc	act	ссс	ccg	gcc	ccc	agc	cca	gct	ccc	1440
Pro	Leu	Asn	Glu	Asp	Val	Phe	Thr	Pro	Pro	Ala	Pro	Ser	Pro	Ala	Pro	
465				_	470					475					480	
tcc	ctg	gac	act	gat	atc	cag	gag	ctg	tca	gag	cag	atc	cač	Cgg	ctg	1488
				Asp												1100
501	200	Пор	••••	485	110		ulu	Bou	490	ulu	GIII	110		495	Dou	
				100					100					100		
ota	ota	00.0	000	ato	000	200	000	960	000	200	aa.	at a	+ ~+	a a a	ort o	1536
u ug	uug	Lag	CCC	gtc	cac	agu	CCC	agu	CCC	acg	gga	CUC	ıgı	gga	guc	1990

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Leu	Leu	Gln	Pro	Val	His	Ser	Pro	Ser	Pro	Thr	Gly	Leu	Cys	Gly	Val	
			500					505					510			
ggc	gcc	gtg	aca	tcc	cca	ggc	cct	ctc	cac	agc	cct	ggg	tcc	tcc	agt	1584
Gly	Ala	Val	Thr	Ser	Pro	Gly	Pro	Leu	His	Ser	Pro	Gly	Ser	Ser	Ser	
		515					520					525				
gat	agc	aac	ggg	ggt	gat	gca	gag	ggg	cct	ggg	cct	cct	gcg	cca	gtg	1632
Asp	Ser	Asn	Gly	Gly	Asp	Ala	Glu	Gly	Pro	Gly	Pro	Pro	Ala	Pro	Val	
	530					535					540					
act	ttc	cag	cag	atc	tgt	aag	gat	gtg	cat	ctg	gtg	aag	cac	cag	ggc	1680
Thr	Phe	Gln	Gln	He	Cys	Lys	Asp	Val	His	Leu	Val	Lys	His	Gln	Gly	
- 4-																
545					550					555					560	
545					550					555					560	
	cag	ctt	ttt	att		tct	cgg	gcc	cgg		cag	tcc	cgg	ccc		1728
cag				att Ile	gag					cct					cgc	1728
cag					gag					cct					cgc	1728
cag				lle	gag				Arg	cct				Pro	cgc	1728
cag Gln	Gln	Leu	Phe	lle	gag Glu	Ser	Arg	Ala	Arg 570	cct Pro	Gln	Ser	Arg	Pro 5 7 5	cgc Arg	1728 1776
cag Gln ctc	Gln	Leu gct	Phe aca	11e 565	gag Glu acg	Ser	Arg	Ala	Arg 570 aag	cct Pro	Gln ctt	Ser	Arg tgc	Pro 575 caa	cgc Arg	
cag Gln ctc	Gln	Leu gct	Phe aca	Ile 565 ggc	gag Glu acg	Ser	Arg	Ala	Arg 570 aag	cct Pro	Gln ctt	Ser	Arg tgc	Pro 575 caa	cgc Arg	
cag Gln ctc	Gln	Leu gct	Phe aca Thr	Ile 565 ggc	gag Glu acg	Ser	Arg	Ala gcc Ala	Arg 570 aag	cct Pro	Gln ctt	Ser	Arg tgc Cys	Pro 575 caa	cgc Arg	
cag Gln ctc Leu	Gln cct Pro	Leu gct Ala	Phe aca Thr 580	Ile 565 ggc	gag Glu acg Thr	Ser ttc Phe	Arg aag Lys	Ala gcc Ala 585	Arg 570 aag Lys	cct Pro gcc Ala	Gln ctt Leu	Ser ccc Pro	tgc Cys 590	Pro 575 caa Gln	cgc Arg tcc Ser	
cag Gln ctc Leu	Gln cct Pro	Leu gct Ala	Phe aca Thr 580	Ile 565 ggc Gly	gag Glu acg Thr	Ser ttc Phe	Arg aag Lys	Ala gcc Ala 585	Arg 570 aag Lys gct	cct Pro gcc Ala	Gln ctt Leu gtc	Ser ccc Pro	tgc Cys 590	Pro 575 caa Gln	cgc Arg tcc Ser	1776

gcc	ttg	gtc	cct	gag	gag	gcc	gag	agg	aaa	gaa	gcc	tcc	agc	tgc	tcc	1872
Ala	Leu	Val	Pro	Glu	Glu	Ala	Glu	Arg	Lys	Glu	Ala	Ser	Ser	Cys	Ser	
	610					615					620					
tac	cag	cag	atc	aac	tgc	ctg	gac	agc	atc	ctc	agg	tac	ctg	gag	agc	1920
Tyr	Gln	Gln	Ile	Asn	Cys	Leu	Asp	Ser	Ile	Leu	Arg	Tyr	Leu	Glu	Ser	
625					630					635					640	
tgc	aac	ctc	ccc	agc	acc.	act	aag	cgt	aaa	tgt	gcc	tcc	tcc	\mathbf{tcc}	tcc	1968
Cys	Asn	Leu	Pro	Ser	Thr	Thr	Lys	Arg	Lys	Cys	Ala	Ser	Ser	Ser	Ser	
				645					650					655		
tat	acc	acc	tcc	tca	gcc	tct	gac	gac	gac	agg	cag	agg	aca	ggt	cca	2016
Tyr	Thr	Thr	Ser	Ser	Ala	Ser	Asp	Asp	Asp	Arg	Gln	Arg	Thr	Gly	Pro	
			660					665					670			
gtc	tct	gtg	ggg	acc	aag	aaa	gat	ccg	ccg	tca	gca	gcg	ctg	tct	ggg	2064
Val	Ser	Val	Gly	Thr	Lys	Lys	Asp	Pro	Pro	Ser	Ala	Ala	Leu	Ser	Gly	
		675					680					685				
gag	ggg	gcc	acc	cca	cgg	aag	gag	cca	gtg	gtg	gga	ggc	acc	ctg	agc	2112
Glu	Gly	Ala	Thr	Pro	Arg	Lys	Glu	Pro	Val	Val	Gly	Gly	Thr	Leu	Ser	
	690					695					700					
ccg	ctc	gcc	ctg	gcc	aat	aag	gcg	gag	agt	gtg	gtg	tcc	gtc	acc	agt	2160

Pro	Leu	Ala	Leu	Ala	Asn	Lys	Ala	Glu	Ser	Val	Val	Ser	Val	Thr	Ser	
705					710					715					720	
cag	tgt	agc	ttc	agc	\mathbf{tcc}	acc	atc	gtc	cat	gtg	gga	gac	aag	aag	ccc	2208
Gln	Cys	Ser	Phe	Ser	Ser	Thr	Ile	Val	His	Val	Gly	Asp	Lys	Lys	Pro	
				725					730					73 5		
ccg	gag	tcg	gac	atc	atc	atg	atg	gag	gac	ctg	cct	ggc	cta	gcc	cca	2256
Pro	Glu	Ser	Asp	Ile	Ile	Met	Met	Glu	Asp	Leu	Pro	Gly	Leu	Ala	Pro	
			740					745					750			
ggc	cca	gcc	ccc	agc	cca	gcc	ccc	agc	ссс	aca	gta	gcc	cct,	gac	cca	2304
Gly	Pro	Ala	Pro	Ser	Pro	Ala	Pro	Ser	Pro	Thr	Val	Ala	Pro	Asp	Pro	
		75 5					760					765				
gcc	cca	gac	gcc	tac	cgt	cca	gtg	ggg	ctg	acc	aag	gcc	gtg	ctg	tcc	2352
Ala	Pro	Asp	Ala	Tyr	Arg	Pro	Val	Gly	Leu	Thr	Lys	Ala	Val	Leu	Ser	
	770					77 5					780					
ctg	cac	aca	cag	aag	gaa	gag	caa	gcc	ttc	ctc	agc	cgc	ttc	cga	gac	2400
Leu	His	Thr	Gln	Lys	Glu	Glu	Gln	Ala	Phe	Leu	Ser	Arg	Phe	Arg	Asp	
7 85					790					795					800	
ctg	ggc	agg	ctg	cgt	gga	ctc	gac	agc	tct	tcc	aca	gct	ccc	tca	gcc	2448
						ctc Leu	_									2448

ctt	ggc	gag	cga	ggc	tgc	cac	cac	ggc	ccc	gca	ccc	cca	agc	cgc	cga	2496
Leu	Gly	Glu	Arg	Gly	Cys	His	His	Gly	Pro	Ala	Pro	Pro	Ser	Arg	Arg	
			820					825					830			
cac	cac	tgc	cga	tcc	aaa	gcc	aag	cgc	tca	cgc	cac	cac	cag	aac	cct	2544
His	His	Cys	Arg	Ser	Lys	Ala	Lys	Arg	Ser	Arg	His	His	Gln	Asn	Pro	
		835					840					845				
cgg	gct	gaa	gcg	ccc	tgc	tat	gtc	tca	cac	ccc	tca	ccc	gtg	cca	ccc	2592
Arg	Ala	Glu	Ala	Pro	Cys	Tyr	Val	Ser	His	Pro	Ser	Pro	Val	Pro	Pro	
	850					855					860					
tcc	acc	ccc	tgg	ccc	acc	cca	cca	gcc	act	acc	ccc	ttc	cca	gcg	gtt	2640
Ser	Thr	Pro	Trp	Pro	Thr	Pro	Pro	Ala	Thr	Thr	Pro	Phe	Pro	Ala	Val	
865					870					875					880	
gtc	cag	ccc	tac	cct	ctc	cca	gtg	ttc	tct	cct	cga	gga	ggc	ccc	cag	2688
Val	Gln	Pro	Tyr	Pro	Leu	Pro	Val	Phe	Ser	Pro	Arg	Gly	Gly	Pro	Gln	
				885					890					895		
cct	ctt	ccc	cct	gct	ccc	aca	tct	gtg	ccc	cca	gct	gct	ttc	ccc	gcc	2736
Pro	Leu	Pro	Pro	Ala	Pro	Thr	Ser	Val	Pro	Pro	Ala	Ala	Phe	Pro	Ala	
			900					905					910			
cct	ttg	gtg	acc	cca	atg	gtg	gcc	ttg	gtg	ctc	cct	aac	tat	ctg	ttc	2784

Pro	Leu	Val	Thr	Pro	Met	Val	Ala	Leu	Val	Leu	Pro	Asn	Tyr	Leu	Phe		
		915					920					925					
cca	acc	cca	tcc	agc	tat	cct	tat	ggg	gca	ctc	cag	acc	cct	gct	gaa	28	32
Pro	Thr	Pro	Ser	Ser	Tyr	Pro	Tyr	Gly	Ala	Leu	Gln	Thr	Pro	Ala	Glu		
	930					935					940						
ggg	cct	ccc	act	cct	gcc	tcg	cac	tcc	cct	tct	cca	tcc	ttg	ccc	gcc	28	80
Gly	Pro	Pro	Thr	Pro	Ala	Ser	His	Ser	Pro	Ser	Pro	Ser	Leu	Pro	Ala		
945					950					955					960		
ctc	ccc	ccg	agt	cct	cct	cac	cgc	ccg	gac	tct	cca	ctg	ttc	aac	tcg	29	28
Leu	Pro	Pro	Ser	Pro	Pro	His	Arg	Pro	Asp	Ser	Pro	Leu	Phe	Asn	Ser		
				965					970					975			
aga	tgc	agc	tct	cca	ctc	cag	ctc	aat	ctg	ctg	cag	ctg	gag	gag	ctc	29	76
Arg	Cys	Ser	Ser	Pro	Leu	Gln	Leu	Asn	Leu	Leu	Gln	Leu	Glu	Glu	Leu		
			980					985					990				
ccc	cgt	gct	gag	ggg	gct	gct	gtt	gca	gga	ggc	cct	ggg	agc	agt	gcc	30	24
Pro	Arg	Ala	Glu	Gly	Ala	Ala	Val	Ala	Gly	Gly	Pro	Gly	Ser	Ser	Ala		
		995					1000)				100	5				
ggg	ccc	cca	cct	ccc	agt	gcg	gag	gct	gct	gag	cca	gag	gcc	aga	ctg	30	72
Gly	Pro	Pro	Pro	Pro	Ser	Ala	Glu	Ala	Ala	Glu	Pro	Glu	Ala	Arg	Leu		
	101	0				101	5				1020	0					

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gcg	gag	gtc	act	gag	tcc	tcc	aat	cag	gac	gca	ctt	tcc	ggc	tcc	agt	3120
Ala	Glu	Val	Thr	Glu	Ser	Ser	Asn	Gln	Asp	Ala	Leu	Ser	Gly	Ser	Ser	
1025	· ·				1030)				1035	5				1040	
gac	ctg	ctc	gaa	ctt	ctg	ctg	caa	gag	gac	tcg	cgc	tcc	ggc	aca	ggc	3168
Asp	Leu	Leu	Glu	Leu	Leu	Leu	Gln	Glu	Asp	Ser	Arg	Ser	Gly	Thr	Gly	
				1045	5				1050)				105	5	
tcc	gca	gcc	tcg	ggc	tcc	ttg	ggc	tct	ggc	ttg	ggc	tct	ggg	tct	ggt	3216
Ser	Ala	Ala	Ser	Gly	Ser	Leu	Gly	Ser	Gly	Leu	Gly	Ser	Gly	Ser	Gly	
			1060)				1065	5				1070)		
tca	ggc	tcc	cat	gaa	ggg	ggc	agc	acc	tca	gcc	agc	atc	act	cgc	agc	3264
Ser	Gly	Ser	His	Glu	Gly	Gly	Ser	Thr	Ser	Ala	Ser	Ile	Thr	Arg	Ser	
		1075	5				1080)				1089	5			
agc	cag	agc	agc	cac	aca	agc	aaa	tac	ttt	ggc	agc	atc	gac	tct	tcc	3312
Ser	Gln	Ser	Ser	His	Thr	Ser	Lys	Tyr	Phe	Gly	Ser	Ile	Asp	Ser	Ser	
	1090)				1095	5				1100)				
gag	gct	gag	gct	ggg	gct	gct	cgg	ggc	ggg	gct	gag	cct	ggg	gac	cag	3360
Glu	Ala	Glu	Ala	Gly	Ala	Ala	Arg	Gly	Gly	Ala	Glu	Pro	Gly	Asp	Gln	
1105	5				1110)				1115	5				1120	

gtg att aag tac gtg ctc cag gat ccc att tgg ctg ctc atg gcc aat

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1220

Val Ile Lys Tyr Val	Leu Gln Asp Pro	lle Trp Leu Leu M	Met Ala Asn
112	5	1130	1135
gct gac cag cgc gtc	atg atg acc tac	cag gtg ccc tcc a	agg gac atg 3456
Ala Asp Gln Arg Val	Met Met Thr Tyr	Gln Val Pro Ser A	Arg Asp Met
1140	114	5 1	1150
acc tct gtg ctg aag	cag gat cgg gag	cgg ctc cga gcc a	atg cag aag 3504
Thr Ser Val Leu Lys	Gln Asp Arg Glu	Arg Leu Arg Ala M	fet Gln Lys
1155	1160	1165	
cag cag cct cgg ttt			
Gln Gln Pro Arg Phe	-	-	Sly Ala Val
1170	1175	1180	
cac tee tgg gte egg			
His Ser Trp Val Arg			
1185	1190	1195	1900
			1200
gcc tgt gtg gac tgt			eac cct gat 3648
Ala Cys Val Asp Cys	Gly Ser Ser Thr	Gln Asp Pro Gly H	eac cct gat 3648 His Pro Asp
	Gly Ser Ser Thr		eac cct gat 3648
Ala Cys Val Asp Cys	Gly Ser Ser Thr 5	Gln Asp Pro Gly H	eac cct gat 3648 His Pro Asp 1215
Ala Cys Val Asp Cys	Gly Ser Ser Thr 5 gag ctg gat gga	Gln Asp Pro Gly E 1210 ctg ggg ctg gag c	eac cct gat 3648 His Pro Asp 1215 ecc atg gaa 3696

1225

1230

1280

33 /46

gag ggt gga ggc gag cag ggc agc agc ggt ggc ggc agt ggt gag gga 3744

Glu Gly Gly Gly Glu Gln Gly Ser Ser Gly Gly Gly Ser Gly Glu Gly

1235

1240

1245

gag ggc tgc gag gag gcc caa ggc ggg gcc aag gct tca agc tct cag 3792

Glu Gly Cys Glu Glu Ala Gln Gly Gly Ala Lys Ala Ser Ser Ser Gln

1250

1255

1260

gac ttg gct atg gag gag gag gaa gaa ggc agg agc tca tcc agt cca

Asp Leu Ala Met Glu Glu Glu Glu Glu Gly Arg Ser Ser Ser Pro

1270

gcc tta cct aca gca gga aac tgc acc agc tag

Ala Leu Pro Thr Ala Gly Asn Cys Thr Ser

1285 1290

1275

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1265

<211> 3876

<212> DNA

<213> Mus musculus

<220>

<221> CDS

<222> (1)..(3876)

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Met	Ser	Gly	Pro	Leu	Glu	Gly	Ala	Asp	Gly	Gly	Gly	Asp	Pro	Arg	Pro	
1				5					10					15		
gga	gaa	cct	ttt	tgt	cct	gga	gga	gtc	cca	tcc	cct	ggg	gcc	ccg	cag	96
Gly	Glu	Pro	Phe	Cys	Pro	Gly	Gly	Val	Pro	Ser	Pro	Gly	Ala	Pro	Gln	
			20					25					30			
				•												
cac	cgg	cct	tgt	cca	ggc	ccc	agc	ctg	gct	gat	gac	act	gat	gca	aac	144
His	Arg	Pro	Cys	Pro	Gly	Pro	Ser	Leu	Ala	Asp	Asp	Thr	Asp	Ala	Asn	
		35					40					45				
agc	aat	ggc	tca	agt	ggc	aat	gag	tcc	aac	gga	ccc	gag	tcc	agg	ggc	192
Ser	Asn	Gly	Ser	Ser	Gly	Asn	Glu	Ser	Asn	Gly	Pro	Glu	Ser	Arg	Gly	
	50					5 5					60					
gca	tct	cag	cgg	agt	tct	cat	agt	tcc	tct	tct	ggc	aat	ggc	aag	gac	240
Ala	Ser	Gln	Arg	Ser	Ser	His	Ser	Ser	Ser	Ser	Gly	Asn	Gly	Lys	Asp	
65					7 0					7 5					80	
tca	gct	ctg	ctg	gag	acc	act	gag	agc	agc	aag	agt	aca	aac	tca	cag	288
Ser	Ala	Leu	Leu	Glu	Thr	Thr	Glu	Ser	Ser	Lys	Ser	Thr	Asn	Ser	Gln	
				85					90					95		

age cea tee cea cee age age tee att gee tae age ete etg agt geg

Ser	Pro	Ser	Pro	Pro	Ser,	Ser	Ser	Ile	Ala	Tyr	Ser	Leu	Leu	Ser	Ala	
			100	•				105					110			
agc	tca	gag	cag	gac	aac	cca	tct	acc	agt	ggc	tgc	agc	agt	gaa	cag	384
Ser	Ser	Glu	Gln	Asp	Asn	Pro	Ser	Thr	Ser	Gly	Cys	Ser	Ser	Glu	Gln	
		115					120					125				
tca	gct	cga	gcc	agg	acc	cag	aaa	gaa	ctc	atg	act	gca	ctt	cgg	gag	432
Ser	Ala	Arg	Ala	Arg	Thr	Gln	Lys	Glu	Leu	Met	Thr	Ala	Leu	Arg	Glu	
	130					135					140					
ctc	aaa	ctt	cga	ctg	cca	cca	gag	cgt	cgg	ggc	aag	ggc	cgc	tct	ggg	480
Leu	Lys	Leu	Arg	Leu	Pro	Pro	Glu	Arg	Arg	Gly	Lys	Gly	Arg	Ser	Gly	
145					150					155					160	
acc	ttg	gcc	aca	ctg	cag	tac	gct	ctg	gcc	tgt	gtc	aag	cag	gtt	cag	528
Thr	Leu	Ala	Thr	Leu	Gln	Tyr	Ala	Leu	Ala	Cys	Val	Lys	Gln	Val	Gln	
				165					170					175		
gct	aac	cag	gaa	tat	tac	cag	cag	tgg	agt	ctg	gag	gag	ggt	gag	cct	576
Ala	Asn	Gln	Glu	Tyr	Tyr	Gln	Gln	Trp	Ser	Leu	Glu	Glu	Gly	Glu	Pro	
			180					185					190			
						-										
tgt	gcc	atg	gac	atg	tct	act	tac	acc	ctg	gag	gaa	ttg	gag	cat	atc	624
Cys	Ala	Met	Asp	Met	Ser	Thr	Tyr	Thr	Leu	Glu	Glu	Leu	Glu	His	Ile	
		195					200					205				

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aca	tcc	gaa	tac	aca	ctt	cga	aac	cag	gac	acc	ttc	tct	gtg	gct	gtg	672
Thr	Ser	Glu	Tyr	Thr	Leu	Arg	Asn	Gln	Asp	Thr	Phe	Ser	Val	Ala	Val	
	210					215					220					
tcc	ttc	ctg	aca	ggc	cgg	att	gtc	tat	att	tcg	gag	cag	gca	ggt	gtc	720
Ser	Phe	Leu	Thr	Gly	Arg	Ile	Val	Tyr	Ile	Ser	Glu	Gln	Ala	Gly	Val	
225					230					235					240	
ctg	ctg	cgt	tgc	aaa	cgg	gat	gtg	ttt	cgg	ggt	gcc	cgc	ttc	tca	gag	768
Leu	Leu	Arg	Cys	Lys	Arg	Asp	Val	Phe	Arg	Gly	Ala	Arg	Phe	Ser	Glu	
				245					250					255		
ctc	ctg	gct	ccc	cag	gat	gtg	ggt	gtc	ttc	tat	ggc	tct	act	aca	cca	816
Leu	Leu	Ala	Pro	Gln	Asp	Val	Gly	Val	Phe	Tyr	Gly	Ser	Thr	Thr	Pro	
·			260					265					270			
tct	cga	ctg	ccc	acc	tgg	ggc	act	ggc	acc	tct	gca	ggt	tca	ggt	ctc	864
Ser	Arg	Leu	Pro	Thr	Trp	Gly	Thr	Gly	Thr	Ser	Ala	Gly	Ser	Gly	Leu	
		275					280					285				
aag	gac	ttc	acc	cag	gaa	aag	tct	gtc	ttc	tgc	cga	atc	aga	gga	ggt	912
Lys	Asp	Phe	Thr	Gln	Glu	Lys	Ser	Val	Phe	Cys	Arg	Ile	Arg	Gly	Gly	
	290					295					300					

cct gac cgg gat cca ggg cct cgg tac cag cca ttc cgc cta acc cca

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	Asp	Arg	Asp	Pro	Gly	Pro	Arg	Tyr	Gln	Pro	Phe	Arg	Leu	Thr	Pro	
305					310					315					320	
tat	gtg	acc	aag	att	cgg	gtc	tca	gat	gga	gcc	cct	gca	cag	ccg	tgc	1008
Tyr	Val	Thr	Lys	Ile	Arg	Val	Ser	Asp	Gly	Ala	Pro	Ala	Gln	Pro	Cys	
				325					330					335		
tgc	cta	ctc	att	gcc	gag	cgc	atc	cac	tet	ggt	tat	gaa	get	ccc	cgg	1056
_						Arg										1000
0,53	БСц	Deu	340	Mia	Ulu	m 8	110	345	DCI	ulj	1 7 1	ulu	350	110	m 5	
			340					040					330			
																4404
			_			atc										1104
Ile	Pro	Pro	Asp	Lys	Arg	Ile	Phe	Thr	Thr	Arg	His	Thr	Pro	Ser	Cys	
		355					360					365				
		000					300					000				
		000					300					300				
ctc	ttc		gat	gta	gat	gaa		gct	gcc	cca	ctg		ggt	tac	ctt	1152
		cag				gaa Glu	agg	_				ctg				1152
		cag					agg	_				ctg				1152
	Phe	cag				Glu	agg	_			Leu	ctg				1152
Leu.	Phe 370	cag Gln	Asp	Val	Asp	Glu	agg Arg	Ala	Ala	Pro	Leu 380	ctg Leu	Gly	Tyr	Leu	1152 1200
Leu.	Phe 370 cag	cag Gln gat	Asp	Val	Asp	Glu 375	agg Arg cca	Ala gta	Ala	Pro	Leu 380 ttt	ctg Leu cta	Gly	Tyr	Leu gag	
ccc Pro	Phe 370 cag	cag Gln gat	Asp	Val	Asp ggg Gly	Glu 375 gct	agg Arg cca	Ala gta	Ala	Pro ctc Leu	Leu 380 ttt	ctg Leu cta	Gly	Tyr	Leu gag Glu	
Leu.	Phe 370 cag	cag Gln gat	Asp	Val	Asp	Glu 375 gct	agg Arg cca	Ala gta	Ala	Pro	Leu 380 ttt	ctg Leu cta	Gly	Tyr	Leu gag	
ccc Pro 385	Phe 370 cag Gln	cag Gln gat Asp	Asp ctc Leu	Val ctg Leu	ggg Gly 390	Glu 375 gct Ala	agg Arg cca Pro	Ala gta Val	Ala ctt Leu	Pro ctc Leu 395	Leu 380 ttt Phe	ctg Leu cta Leu	Gly cat His	Tyr cct Pro	Leu gag Glu 400	1200
ccc Pro 385	Phe 370 cag Gln	cag Gln gat Asp	Asp ctc Leu	Val ctg Leu	ggg Gly 390	Glu 375 gct Ala	agg Arg cca Pro	Ala gta Val	Ala ctt Leu	Pro ctc Leu 395	Leu 380 ttt Phe	ctg Leu cta Leu	Gly cat His	Tyr cct Pro	gag Glu 400	
ccc Pro 385	Phe 370 cag Gln	cag Gln gat Asp	Asp ctc Leu	Val ctg Leu	ggg Gly 390	Glu 375 gct Ala	agg Arg cca Pro	Ala gta Val	Ala ctt Leu	Pro ctc Leu 395	Leu 380 ttt Phe	ctg Leu cta Leu	Gly cat His	Tyr cct Pro	gag Glu 400	1200

ggc	cag	ccc	ttt	gac	cat	tcc	cct	att	cgc	ttc	tgt	gct	cgg	aac	ggg	1296
Gly	Gln	Pro	Phe	Asp	His	Ser	Pro	Ile	Arg	Phe	Cys	Ala	Arg	Asn	Gly	
			420					425					430			
gaa	tat	gtc	acc	atg	gac	acc	agc	tgg	gcc	ggt	ttt	gtg	cac	ccc	tgg	1344
Glu	Tyr	Val	Thr	Met	Asp	Thr	Ser	Trp	Ala	Gly	Phe	Val	His	Pro	Trp	
		435					440					445				
agc	cgc	aag	gtg	gct	ttc	gtg	ttg	ggt	cgc	cat	aaa	gtg	cgc	acg	gca	1392
Ser	Arg	Lys	Val	Ala	Phe	Val	Leu	Gly	Arg	His	Lys	Val	Arg	Thr	Ala	
	450					455					460					
ccc	ctg	aat	gag	gac	gtc	ttc	act	ссс	cca	gcc	ccc	agc	cca	gct	ccg	1440
Pro	Leu	Asn	Glu	Asp	Val	Phe	Thr	Pro	Pro	Ala	Pro	Ser	Pro	Ala	Pro	
465					470					475					480	
tcc	ctg	gac	tct	gat	atc	cag	gag	ctc	tca	gag	cag	atc	cat	cga	ttg	1488
Ser	Leu	Asp	Ser	Asp	Ile	Gln	Glu	Leu	Ser	Glu	Gln	Ile	His	Arg	Leu	
				485					490					495		
ctg	ctg	cag	cct	gtg	cac	agc	tcc	agc	ccc	acg	ggg	ctc	tgt	gga	gtt	1536
Leu	Leu	Gln	Pro	Val	His	Ser	Ser	Ser	Pro	Thr	Gly	Leu	Cys	Gly	Val	
			500					505					510			
ggc	cct	ctg	atg	tcc	cct	ggt	cct	cta	cac	agc	cct	ggc	tcc	tcc	agt	1584

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uly	Pro	Leu	Met	Ser	Pro	Gly	Pro	Leu	His	Ser	Pro	Gly	Ser	Ser	Ser	
		515					520					525				
gat	agc	aat	ggg	ggg	gac	gct	gag	ggg	cct	ggg	cct	cct	gct	cca	gtg	1632
Asp	Ser	Asn	Gly	Gly	Asp	Ala	Glu	Gly	Pro	Gly	Pro	Pro	Ala	Pro	Val	
	530					535					540					
				atc												1680
Thr	Phe	Gln	Gln	Ile	Cys	Lys	Asp	Val	His	Leu	Val	Lys	His	Gln	Gly	
545					550					555					560	
				att												1728
Gln	Gln	Leu	Phe	Ile	Glu	Ser	Arg	Ala		Pro	Pro	Pro	Arg	Pro	Arg	
				565					570							
				000					310					575		
				ggt					aaa					cag		1776
			Thr					Ala	aaa					cag		1776
				ggt					aaa					cag		1776
Leu	Leu	Ala	Thr 580	ggt Gly	Thr	Phe	Lys	Ala 585	aaa Lys	Val	Leu	Pro	Cys 590	cag Gln	Ser	
Leu	Leu aac	Ala	Thr 580	ggt Gly	Thr	Phe gtg	Lys	Ala 585 cca	aaa Lys gtt	Val	Leu	Pro caa	Cys 590 gcc	cag Gln tcg	Ser tta	1776 1824
Leu	Leu aac	Ala ccc Pro	Thr 580	ggt Gly	Thr	Phe gtg	Lys gcc Ala	Ala 585 cca	aaa Lys gtt	Val	Leu	Pro caa Gln	Cys 590 gcc	cag Gln tcg	Ser tta	
Leu	Leu aac	Ala	Thr 580	ggt Gly	Thr	Phe gtg	Lys	Ala 585 cca	aaa Lys gtt	Val	Leu	Pro caa	Cys 590 gcc	cag Gln tcg	Ser tta	
Leu cca Pro	Leu aac Asn	Ala ccc Pro 595	Thr 580 gaa Glu	ggt Gly ctg Leu	Thr gag Glu	Phe gtg Val	gcc Ala 600	Ala 585 cca Pro	aaa Lys gtt Val	Val cct Pro	Leu gac Asp	Pro caa Gln 605	Cys 590 gcc Ala	cag Gln tcg Ser	Ser tta Leu	
Leu cca Pro	Leu aac Asn	Ala ccc Pro 595	Thr 580 gaa Glu	ggt Gly	Thr gag Glu	Phe gtg Val	gcc Ala 600	Ala 585 cca Pro	aaa Lys gtt Val	Val cct Pro	Leu gac Asp	Pro caa Gln 605	Cys 590 gcc Ala	cag Gln tcg Ser	Ser tta Leu	
cca Pro	Leu aac Asn	Ala ccc Pro 595	Thr 580 gaa Glu	ggt Gly ctg Leu	Thr gag Glu gag	Phe gtg Val	gcc Ala 600	Ala 585 cca Pro	aaa Lys gtt Val	Val cct Pro	Leu gac Asp	Pro caa Gln 605	Cys 590 gcc Ala	cag Gln tcg Ser	Ser tta Leu tcc	1824

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tac	cag	cag	atc	aac	tgc	ctg	gac	agc	atc	ctc	agg	tat	ttg	gag	agc	1920
Tyr	Gln	Gln	Ile	Asn	Cys	Leu	Asp	Ser	Ile	Leu	Arg	Tyr	Leu	Glu	Ser	
625					630					635					640	
tgc	aac	att	ccc	agt	aca	acc	aag	cgt	aaa	tgt	gcc	tcc	tcc	tcc	tcc	1968
Cys	Asn	Ile	Pro	Ser	Thr	Thr	Lys	Arg	Lys	Cys	Ala	Ser	Ser	Ser	Ser	
			•	645					650					655		
tac	act	gcc	tct	tca	gcc	tct	gat	gat	gac	aag	cag	agg	gca	ggt	cca	2016
Tyr	Thr	Ala	Ser	Ser	Ala	Ser	Asp	Asp	Asp	Lys	Gln	Arg	Ala	Gly	Pro	
			660					665					670			
gtt	cct	gtg	ggg	gcc	aag	aaa	gat	ccg	tcg	tca	gca	atg	ctg	tct	ggg	2064
Val	Pro	Val	Gly	Ala	Lys	Lys	Asp	Pro	Ser	Ser	Ala	Met	Leu	Ser	Gly	
		675					680					685				
gag	ggg	gca	act	cct	cgg	aag	gag	cca	gtg	gtg	gga	ggc	acc	ctg	agc	2112
Glu	Gly	Ala	Thr	Pro	Arg	Lys	Glu	Pro	Val	Val	Gly	Gly	Thr	Leu	Ser	
	690					695					700					
ccg	ctc	gcc	ctg	gcc	aat	aag	gca	gag	agc	gtg	gtg	tcc	gtc	acc	agt	2160
Pro	Leu	Ala	Leu	Ala	Asn	Lys	Ala	Glu	Ser	Val	Val	Ser	Val	Thr	Ser	
705					710					715					720	

cag tgt agc ttc agc tcc acc atc gtc cat gtg gga gac aag aag ccc

2208

GIn	Cys	Ser	Phe	Ser	Ser	Thr	Ile	Val	His	Val	Gly	Asp	Lys	Lys	Pro	
				725					73 0					735		
ccg	gag	tcg	gac	atc	atc	atg	atg	gaa	gac	ctg	cct	ggc	ctg	gcc	cct	2256
Pro	Glu	Ser	Asp	Ile	Ile	Met	Met	Glu	Asp	Leu	Pro	Gly	Leu	Ala	Pro	
			740					745					7 50			
ggc	cca	gcc	ccc	agt	ccg	gcc	ccc	agc	ccc	aca	gta	gcc	cct	gac	cca	2304
Gly	Pro	Ala	Pro	Ser	Pro	Ala	Pro	Ser	Pro	Thr	Val	Ala	Pro	Asp	Pro	
		755					760					76 5				
acc	cca	gat	gct	tat	cgc	cca	gtg	ggt	ctg	acc	aag	gcc	gtg	ctg	tcc	2352
Thr	Pro	Asp	Ala	Tyr	Arg	Pro	Val	Gly	Leu	Thr	Lys	Ala	Val	Leu	Ser	
	77A															
	77 0					775					780					
	770					775			-		780					
ctg		aca	cag	aag	gaa	775 gag	caa	gcc	ttc	ctc	٠	cgc	ttc	aga	gat	2400
	cac										aac					2400
	cac					gag					aac					2400
Leu	cac				Glu	gag				Leu	aac				Asp	2400
Leu 785	cac His	Thr	Gln	Lys	Glu 790	gag	Gln	Ala	Phe	Leu 795	aac Asn	Arg	Phe	Arg	Asp 800	2400 2448
Leu 785 ctt	cac His	Thr	Gln ctt	Lys	Glu 790 gga	gag Glu	Gln gac	Ala	Phe tct	Leu 795 tct	aac Asn	Arg	Phe	Arg tca	Asp 800 gcc	
Leu 785 ctt	cac His	Thr	Gln ctt	Lys	Glu 790 gga	gag Glu ctt	Gln gac	Ala	Phe tct	Leu 795 tct	aac Asn	Arg	Phe	Arg tca	Asp 800 gcc	
Leu 785 ctt	cac His	Thr	Gln ctt	Lys cgt Arg	Glu 790 gga	gag Glu ctt	Gln gac	Ala	Phe tct Ser	Leu 795 tct	aac Asn	Arg	Phe	Arg tca Ser	Asp 800 gcc	
Leu 785 ctt Leu	cac His ggc Gly	Thr agg Arg	Gln ctt Leu	cgt Arg 805	Glu 790 gga Gly	gag Glu ctt	Gln gac Asp	Ala acc Thr	Phe tct Ser 810	Leu 795 tct Ser	aac Asn gtg Val	Arg gcc Ala	Phe ccc Pro	tca Ser 815	Asp 800 gcc Ala	
Leu 785 ctt Leu cct	cac His ggc Gly	Thr agg Arg	Gln ctt Leu	cgt Arg 805	Glu 790 gga Gly	gag Glu ctt Leu	Gln gac Asp	Ala acc Thr	tct Ser 810	Leu 795 tct Ser	aac Asn gtg Val	Arg gcc Ala	Phe ccc Pro	tca Ser 815	Asp 800 gcc Ala	2448

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2832

cga	tct	aaa	gca	aag	cgt	tcc	cgc	cac	cac	cac	cac	cag	acc	ccc	cgg	2544
Arg	Ser	Lys	Ala	Lys	Arg	Ser	Arg	His	His	His	His	Gln	Thr	Pro	Arg	
		835					840					845				
ccc	gaa	act	ccc	tgc	tat	gtc	tcc	cat	cct	tca	cct	gtg	ccc	tct	tct	2592
Pro	Glu	Thr	Pro	Cys	Tyr	Val	Ser	His	Pro	Ser	Pro	Val	Pro	Ser	Ser	
	850					855					860					
gga	ccc	tgg	cca	ccc	cca	cca	gcc	acg	acc	ccc	ttc	cca	gca	atg	gtc	2640
Gly	Pro	Trp	Pro	Pro	Pro	Pro	Ala	Thr	Thr	Pro	Phe	Pro	Ala	Met	Val	
865					870					875					880	
														•		
cag	ccc	tac	cca	ctc	cca	gta	ttc	tcc	cct	cga	gga	gga	ссс	cag	ccc	2688
Gln	Pro	Tyr	Pro	Leu	Pro	Val	Phe	Ser	Pro	Arg	Gly	Gly	Pro	Gln	Pro	
				885					890					895		
ctt	ccc	cct	gcc	cct	aca	tct	gtg	tcc	cct	gct	acc	ttc	cct	tct	ccc	2736
Leu	Pro	Pro	Ala	Pro	Thr	Ser	Val	Ser	Pro	Ala	Thr	Phe	Pro	Ser	Pro	
			900					905					910			
tta	gtg	acc	cca	atg	gtg	gcc	ttg	gtg	ctc	cct	aac	tat	cta	ttc	cct	2784
Leu	Val	Thr	Pro	Met	Val	Ala	Leu	Val	Leu	Pro	Asn	Tyr	Leu	Phe	Pro	
		915					920					925				

acc cca cct agt tat cca tat ggg gtg tcc cag gcc cct gtt gag ggg

IIII	Pro	Pro	Ser	Tyr	Pro	Tyr	Gly	Val	Ser	Gln	Ala	Pro	Val	Glu	Gly	
	930					935					940					
								•								
cca	ccc	acg	cct	gct	tcc	cac	tcg	ccc	tct	cca	tcc	ctg	ссс	cca	cca	2880
Pro	Pro	Thr	Pro	Ala	Ser	His	Ser	Pro	Ser	Pro	Ser	Leu	Pro	Pro	Pro	
945					950					955					960	
cct	ctc	agc	ccc	ccc	cac	cgc	cca	gac	tcc	cca	ctg	ttc	aac	tcg	aga	2928
Pro	Leu	Ser	Pro	Pro	His	Arg	Pro	Asp	Ser	Pro	Leu	Phe	Asn	Ser	Arg	
				965					970		•			975		
tgc	agc	tcc	cca	ctc	cag	ctc	aat	ctg	ctg	cag	ctt	gag	gag	tcc	ccc	2976
Cys	Ser	Ser	Pro	Leu	Gln	Leu	Asn	Leu	Leu	Gln	Leu	Glu	Glu	Ser	Pro	
			980					חסב					000			
			900					985					990			
			900					900					990			
cgc	acg	gag		ggc	gct	gct	gca		ggc	cca	gga	agc		gct	ggg	3024
			ggg			gct Ala		gga					agt			3024
			ggg					gga Gly					agt Ser			3024
		Glu	ggg				Ala	gga Gly				Ser	agt Ser			3024
Arg	Thr	Glu 995	ggg Gly	Gly	Ala		Ala 1000	gga Gly)	Gly	Pro	Gly	Ser 100	agt Ser	Ala	Gly	3024 3072
Arg	Thr	Glu 995 cct	ggg Gly ccc	Gly	Ala	Ala	Ala 1000 act	gga Gly) gct	Gly	Pro cca	Gly	Ser 1009 gcc	agt Ser 5	Ala ttg	Gly	
Arg	Thr	Glu 995 cct Pro	ggg Gly ccc	Gly	Ala gag Glu	Ala	Ala 1000 act Thr	gga Gly) gct	Gly	Pro cca	Gly	Ser 1009 gcc Ala	agt Ser	Ala ttg	Gly	
Arg	Thr ctg Leu	Glu 995 cct Pro	ggg Gly ccc	Gly	Ala gag Glu	Ala gag Glu	Ala 1000 act Thr	gga Gly) gct	Gly	Pro cca	Gly gag Glu	Ser 1009 gcc Ala	agt Ser	Ala ttg	Gly	
Arg ccc Pro	Thr ctg Leu 1010	Glu 995 cct Pro	ggg Gly ccc Pro	Gly agt Ser	Ala gag Glu	Ala gag Glu	Ala 1000 act Thr	gga Gly) gct Ala	Gly gag Glu	Pro cca Pro	gag Glu 1020	Ser 1009 gcc Ala	agt Ser aga Arg	Ala ttg Leu	Gly gtg Val	
Arg ccc Pro	Thr ctg Leu 1010	Glu 995 cct Pro	ggg Gly ccc Pro	Gly agt Ser	Ala gag Glu tcc	Ala gag Glu 1018	Ala 1000 act Thr	gga Gly) gct Ala	Gly gag Glu gca	Pro cca Pro	gag Glu 1020	Ser 1009 gcc Ala	agt Ser aga Arg	Ala ttg Leu	Gly gtg Val	3072
Arg ccc Pro	Thr ctg Leu 1010 gtt Val	Glu 995 cct Pro	ggg Gly ccc Pro	Gly agt Ser	Ala gag Glu tcc	gag Glu 1013 aat Asn	Ala 1000 act Thr	gga Gly) gct Ala	Gly gag Glu gca	Pro cca Pro	gag Glu 1020 tca Ser	Ser 1009 gcc Ala	agt Ser aga Arg	Ala ttg Leu	Gly gtg Val	3072

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ctg	ctg	gag	cta	ctg	ctc	caa	gaa	gac	tct	cgc	tcg	ggc	aca	ggc	tcc	3168
Leu	Leu	Glu	Leu	Leu	Leu	Gln	Glu	Asp	Ser	Arg	Ser	Gly	Thr	Gly	Ser	
				1045	5				1050)				105	5	
gca	gcc	tca	ggc	tcc	ctg	ggc	tct	ggc	ctg	ggc	tct	ggg	tct	ggt	tca	3216
Ala	Ala	Ser	Gly	Ser	Leu	Gly	Ser	Gly	Leu	Gly	Ser	Gly	Ser	Gly	Ser	
			1060)				1065	5				1070)		
gga	tcc	cac	gaa	ggg	gga	agc	acc	tca	gcc	agc	atc	acc	cgc	agc	agt	3264
Gly	Ser	His	Glu	Gly	Gly	Ser	Thr	Ser	Ala	Ser	Ile	Thr	Arg	Ser	Ser	
		1079	ō				1080)				1085	5			
cag	agc	agc	cat	aca	agc	aag	tac	ttt	ggc	agc	atc	gac	tct	tcc	gag	3312
Gln	Ser	Ser	His	Thr	Ser	Lys	Tyr	Phe	Gly	Ser	Ile	Asp	Ser	Ser	Glu	
	1090)				1095	õ				1100)				
gct	gaa	gct	ggg	gct	gct	cgg	gcc	agg	act	gag	cct	ggg	gac	cag	gtc	3360
Ala	Glu	Ala	Gly	Ala	Ala	Arg	Ala	Arg	Thr	Glu	Pro	Gly	Asp	Gln	Val	
1108	5				1110)				1115	5				1120	
att	aag	tgt	gtg	ctc	cag	gac	ccc	atc	tgg	ctg	ctc	atg	gcc	aat	gcc	3408
Ile	Lys	Cys	Val	Leu	Gln	Asp	Pro	Ile	Trp	Leu	Leu	Met	Ala	Asn	Ala	
				112	5				1136)				113	5	
		4	. 4										A			0.450

gac cag cgt gtc atg atg aca tac cag gtg ccg tcc agg gat gca gcc

Asp	Gln	Arg	Val	Met	Met	Thr	Tyr	Gln	Val	Pro	Ser	Arg	Asp	Ala	Ala	
			1140)				1145	5				1150	0		
		•														
tct	gtg	ctg	aag	caa	gac	cgg	gag	agg	ctc	cgg	gcc	atg	cag	aaa	cag	3504
Ser	Val	Leu	Lys	Gln	Asp	Arg	Glu	Arg	Leu	Arg	Ala	Met	Gln	Lys	Gln	
		1155	5				1160)				1165	5			
cag	cca	cgg	ttc	tca	gag	gac	cag	agg	cgg	gaa	ctg	ggt	gct	gtg	cac	3552
Gln	Pro	Arg	Phe	Ser	Glu	Asp	Gln	Arg	Arg	Glu	Leu	Gly	Ala	Val	His	
	1170)				1178	5				1180)				
tcc	tgg	gtc	cgg	aag	ggc	cag	ctg	cct	cgg	gcc	ctt	gat	gtg	atg	gcg	3600
Ser	Trp	Val	Arg	Lys	Gly	Gln	Leu	Pro	Arg	Ala	Leu	Asp	Val	Met	Ala	
118	5				1190)				1195	5				1200	
1189	5				1190)				1195	5				1200	
		gac	tgt	ggc		agc	gtt	caa	gat			cac	tct	gat		3648
tgt	gtg				agc					cct	ggc				gac	3648
tgt	gtg				agc Ser	agc				cct Pro	ggc				gac Asp	3648
tgt	gtg			Gly	agc Ser	agc			Asp	cct Pro	ggc			Asp	gac Asp	3648
tgt Cys	gtg Val	Asp	Cys	Gly 1205	agc Ser	agc	Val	Gln	Asp 1210	cct Pro	ggc Gly	His	Ser	Asp 1215	gac Asp	3648 3696
tgt Cys	gtg Val ctc	Asp	Cys	Gly 1205 gaa	agc Ser	agc Ser	Val gga	Gln ttg	Asp 1210 ggg	cct Pro) ctg	ggc Gly gag	His ccc	Ser	Asp 1215 gaa	gac Asp	
tgt Cys	gtg Val ctc	Asp	Cys	Gly 1205 gaa Glu	agc Ser	agc Ser gat	Val gga	Gln ttg	Asp 1210 ggg Gly	cct Pro) ctg	ggc Gly gag	His ccc	Ser	Asp 1218 gaa Glu	gac Asp	
tgt Cys	gtg Val ctc	Asp	Cys tca Ser	Gly 1205 gaa Glu	agc Ser	agc Ser gat	Val gga	Gln ttg Leu	Asp 1210 ggg Gly	cct Pro) ctg	ggc Gly gag	His ccc	Ser atg Met	Asp 1218 gaa Glu	gac Asp	
tgt Cys ccg Pro	gtg Val ctc Leu	ttc Phe	tca Ser 1220	Gly 1205 gaa Glu	agc Ser Ctg Leu	agc Ser gat	Val gga Gly	Gln ttg Leu 1225	Asp 1210 ggg Gly	cct Pro) ctg Leu	ggc Gly gag Glu	His ccc Pro	atg Met 1230	Asp 1218 gaa Glu	gac Asp gag Glu	
tgt Cys ccg Pro	gtg Val ctc Leu	ttc Phe	tca Ser 1220	Gly 1205 gaa Glu)	agc Ser ctg Leu	agc Ser gat Asp	Val gga Gly tgt	ttg Leu 1225	Asp 1210 ggg Gly	cct Pro) ctg Leu	ggc Gly gag Glu	His ccc Pro	atg Met 1230	Asp 1218 gaa Glu)	gac Asp gag Glu	3696

ggt	ggt	gag	gag	gcc	cag	acc	caa	att	ggg	gct	aag	ggt	tca	agc	tct	3792
Gly	Gly	Glu	Glu	Ala	Gln	Thr	Gln	Ile	Gly	Ala	Lys	Gly	Ser	Ser	Ser	
	1250					1255	5				1260)				
cag	gac	tct	gcc	atg	gag	gaa	gaa	gag	caa	ggt	ggg	ggc	tca	tcc	agc	3840
Gln	Asp	Ser	Ala	Met	Glu	Glu	Glu	Glu	Gln	Gly	Gly	Gly	Ser	Ser	Ser	
1269	õ				1270)				1275	5				1280	
				•												
cca	gct	tta	cct	gca	gaa	gaa	aac	agc	acc	agc	tag					3876
Pro	Ala	Leu	Pro	Ala	Glu	Glu	Asn	Ser	Thr	Ser						
				1289	5				1290	0						